

🌐 SDG-Aligned Report: Student Dropout Prediction Streamlit App

Overview:

This app supports the global effort to achieve **Sustainable Development Goals (SDGs)** by using machine learning to predict and prevent student dropout. By identifying at-risk learners early, it empowers institutions to take targeted, data-driven action—addressing root causes of educational inequality and promoting lifelong learning.

SDG	Description	App Contribution
SDG 4: Quality Education	Ensure inclusive, equitable, and quality education for all	Flags students at risk, enabling timely interventions and personalized support
SDG 1: No Poverty	End poverty in all its forms everywhere	Helps reduce poverty-related dropout by identifying socioeconomic risk factors and encouraging retention
SDG 5: Gender Equality	Achieve gender equality and empower all women and girls	Monitors gender-based performance and dropout patterns, contributing to data-informed gender equity strategies
SDG 10: Reduced Inequalities	Reduce inequality within and among countries	Offers scalable, accessible solutions for educational institutions regardless of geography or resources

💡 Key App Features Linked to SDGs

- **Predictive Analytics** for dropout risk based on engagement, socioeconomic indicators, and platform activity
- **Interactive Dashboard** for educators and administrators to explore dropout patterns and tailor interventions
- **Inclusive Modeling** that captures age, gender, income, and access gaps without bias
- **Policy Alignment** for education departments seeking tech-driven dropout reduction frameworks
- **Scalability** to deploy across low-resource settings, including rural and underserved communities

🚀 Potential Impact

- **Empowers schools and universities** with early-warning systems, reducing dropout rates
- **Strengthens data-driven education policy**, especially in regions struggling with retention
- **Promotes equity**, ensuring every learner has a fair chance to succeed regardless of background